We claim:

1. A pneumatic brake booster comprising an envelope with longitudinal axis (X) in which there is mounted to slide with sealing a skirt dividing a low-pressure chamber from a variable-pressure chamber, a pneumatic piston (11) of longitudinal axis (X) mounted securely in a central orifice of the skirt, said piston (11) comprising a rear tubular part in which there is arranged a three-way valve (19) actuated by an actuating rod connected to a brake pedal, said three-way valve comprising a plunger distributor (20) formed by a central feeler (22) and a bushing (32), said bushing forming part of an emergency brake boosting device and being mounted to slide around the central feeler, said device also comprising a key for axially indexing the bushing relative to the pneumatic piston of the booster, said bushing comprising a stop means (114, 224, 324) able to collaborate with part of the key for a rate of travel (V) of the distributor above a predetermined rate of activation (Vs), said key, in the case of emergency braking, keeping the bushing (32) in a forward position relative to the central feeler (22) to modify the jump of said booster and the reaction transmitted to the brake pedal, characterized in that the bushing (102, 202, 302) comprises at least one adjusting means (120, 220, 230, 326) for adjusting the axial position of the stop means relative to a first (101, 201, 301) and a second (103, 203, 303) longitudinal end of the bushing and in part fixing the activation rate (Vs).

2. The booster according to claim 1, characterized in that the stop means (114) comprises an annular projection formed as an integral part of the bushing body.

3. The booster according to claim 2, characterized in that the bushing comprises a first and a second section (122, 124) arranged between the stop means (114) and the second longitudinal end (103) of the bushing (102) and in that the first section (122) can

be plastically deformed under a load lower than the load needed to plastically deform the second section (124).

4. The booster according to claim 3, characterized in that the second section (122) has a roughly ellipsoidal longitudinal section.

5. The booster according to claim 4, characterized in that the stop means (114) is formed by an annular projection forming a first rest means able to collaborate with a device used to manufacture said booster.

6. The booster according to claim 5, characterized in that the bushing comprises a third and a fourth section (125, 128) which is arranged between a second rest means (116) formed by a shoulder on the exterior periphery of the bushing and the first longitudinal end (103) of the bushing and in that the third section (125) can be plastically deformed under a load lower than the load needed to plastically deform the fourth section (128).

7. The booster according to claim 6, characterized in that the second rest means (116) forms, with the stop means, an annular groove (118), said second rest means being able to collaborate with a device used to manufacture said booster.

8. The booster according to claim 7, characterized in that the third section (125) comprises a sleeve tube of smaller thickness relative to the thickness of the sleeve tube that forms the fourth section.

9. The booster according to claim 1, characterized in that the stop means (224, 324) comprises an annular ring (226, 326) attached to the bushing body (204, 304).

10. The booster according to claim 9, characterized in that the stop means (224) comprises means of attachment by crimping to the bushing body (204).

11. The booster according to claim 10, characterized in that the means of attachment comprises a sleeve tube running axially from the internal

periphery of the ring (226).

12.The booster according to Claim 9, characterized in that the annular ring is fixed by welding to the bushing body (204).

13. The booster according to claim 10, characterized in that the welding is laser welding.

14. The booster according to claim 8 wherein during its manufacture it is characterized by holding means (132, 132') for axially holding the bushing, a moving means (130, 130') able to move along the longitudinal axis (X) relative to said holding means (132, 132') and able to apply a plastic deformation stress (F) to the bushing body (122, 125), and a limiting means (152, 152') for limiting the travel of the moving means (130, 130') relative to the bushing body (122, 125).

15. The booster according to claim 14, further characterized in that the holding means (132, 132') collaborates with rest means (114, 116) borne by the bushing and respectively forming the rims of an annular groove.

16. The booster according to claim 15, characterized in that the moving means (130, 130') comprises an annular shoulder (154, 154') running radially outward and able to collaborate with the means (152') for limiting the travel of the moving means (130, 130').

17. The booster according to claim 16, characterized in that the means (152, 152') for limiting the travel of the moving means (130, 130') comprises a surface for axially indexing the moving means (130') and adjustable spacer means.

18. The booster according to claim 17, characterized in that the spacer means comprises at least one washer arranged between the axial indexing surface and the annular shoulder (154, 154').

19. The booster according to claim 18, characterized in that the axial holding means (132) is an annular ring which, during manufacture, rests

against the second rest means (114) of the bushing.

20. The booster according to claim 19, characterized in that the moving means (130) comprises an annular groove (146) for accommodating the second section (124) of the bushing (102), said groove (146) being coaxial with the bushing.

21. The booster according to claim 20, characterized in that the moving means (130) comprises an internal axial guidance means (150) for guiding said moving means (130) relative to the bushing.

22. The booster according to claim 21, characterized in that said internal guidance means (150) comprises a cylindrical bearing surface.

23. The booster according to claim 22, characterized in that said guidance means (150) is bordered by the internal periphery of the groove (146) and collaborates with the internal surface of the smaller-diameter second part (110) of the bore (106) made in the bushing (102).

24. The booster according to claim 23, characterized in that the internal axial guidance means (150) is of cylindrical shape and runs axially toward the outside of the body of the moving means (130).

25. The booster according to claim 24, characterized in that it comprises an external guidance means (156) formed by an element of tubular shape slidably accommodating the moving means (130).

26. The booster according to claim 25, characterized in that a first longitudinal end of the tubular-shaped element (156) rests against the fixed holding means (132) that holds the bushing and a second longitudinal end of said tube forms the axial indexing surface (152).

27. The booster according to claim 26, characterized in that it comprises a housing to house the third and fourth sections (125, 128) forming a means for transversely holding the pin.

28. The booster according to claim 27, characterized in that said housing comprises a

cylindrical cavity of an inside diameter equal to the outside diameter of the fourth section (128).

29. The booster according to claim 28, characterized in that said housing comprises an annular housing forming a rest for the annular ring (146).

30. The booster according to claim 18, characterized in that the axial holding means (132') is an annular ring resting against the second rest means (116) of the bushing.

31. The booster according to claim 12, wherein during its manufacture it is characterized in that it comprises at least the steps of:

measuring at least one longitudinal dimension (A, B) of the bushing involved in the rate of travel value;

comparing the dimension (A, B) with the value (A0, B0) that is to be achieved;

rejecting the bushing if the measured dimension (A, B) is less than the value (A0, BO) that is to be achieved; and

altering the position of the axial stop relative to the first and second axial ends of the bushing if the measured dimension (A, B) is greater than the value (A0, BO) that is to be achieved.

32. The booster according to claim 31, characterized in that the position of the axial stop is altered relative to the first and second axial end of the bushing by axially deforming part of the bushing.

33. The booster according to claim 31, characterized in that the position of the axial stop relative to the first and second axial end of the bushing is altered by axially deforming part of the bushing.

34. The booster according to claim 31 characterized in that the position of the axial stop relative to the first and second axial end of the bushing is altered by moving the annular ring (226, 326) relative to the body of the bushing (204, 304), and in that said ring (226, 326) is immobilized with

respect to the bushing body (204, 304).

35. The booster according to claim 31, characterized in that the ring (226) is immobilized by crimping said ring onto the bushing body (204).

36. The booster according to claim 14, characterized in that the ring (326) is immobilized by laser welding said ring onto the bushing body (304).